

Date: Tue, 15 Jun 93 12:45:19 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #730
To: Info-Hams

Info-Hams Digest Tue, 15 Jun 93 Volume 93 : Issue 730

Today's Topics:

 6 meter E-skip is back!
 A little radio FUN!
 AM Broadcast Radio Antenna
 BNC connectors (2 msgs)
 BUYING COAX
 Daily Solar Geophysical Data Broadcast for 14 June
 Field Day Power.
 Ground Plane always on bottom?
 Icom IC-20L
 Info-Hams Digest V93 #727
 June VHF Contest - Score Rumors
 Kenwood TH-78 Problems
 Labelling of layers in Ionosphere
 The ITU phonetic alphabet
 Wanted: High-power Amp for 144 MHz

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 15 Jun 1993 18:05:10 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!sdd.hp.com!col.hp.com!fc.hp.com!
perry@network.UCSD.EDU
Subject: 6 meter E-skip is back!
To: info-hams@ucsd.edu

It's summertime again in the US and 6-meter E-skip is back!

TV channel 2 in Colorado was obliterated by Cedar Rapids Iowa. It really messed up my Rockies game. I have noticed interference on channel 2 every time I've turned on the TV.

73!

Perry Scott
AA0ET

Date: Tue, 15 Jun 93 17:38:49 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!
europa.eng.gtefsd.com!eddie.mit.edu!uhog.mit.edu!xn.ll.mit.edu!ll.mit.edu!
wjc@network.UCSD.EDU
Subject: A little radio FUN!
To: info-hams@ucsd.edu

In article <1vitjl\$99t@transfer.stratus.com>, fms@sw.stratus.com (Faith Senie) writes:

|> Hi all,
|>
|> ... stuff deleted ...
|>
|> We worked bunches of stations
|> from up there on 6M (including a whole string of FM04's and EL98's), quite a
|> few 2M stations, and even a handful of stations on 432. That's a new band for
|> us on sideband, so we were happy to work anybody. There was one station on 432
|> in FN22 (WA2WHD I think), waaaaay down in the noise, who absolutely could not
|> get
|> the last letter of my callsign. I had the volume on the rig up at maximum so I
|> could hear them, and I was screaming "Tango! Tango! Tango!" into the mic. No
|> luck.
|>
|> ... stuff deleted ...
|>
|> It took 10 whole minutes for me to get that last letter of my callsign
|> through -- I swear the entire population of the mountaintop was cheering
|> when I finally got that FN22 station, though that could have just been my
|> imagination... :-)
|>

I just have to ask: had you brought a code key along with you?
Whenever I've had to send my contest information by voice more than a
very few times, I've always switched to CW. One transmission of:

N1CPK N1CPK FN42 FN42 K

and the other station has me in the log. I'm sure it would have worked in your case, assuming the operator of the moment at WA2WHD knew code!

Of course, if your intent was to show that you could work the path using SSB, the above is moot...

73

Bill Chiarchiaro N1CPK
wjc@ll.mit.edu

Date: Tue, 15 Jun 1993 14:41:07 GMT
From: usc!elroy.jpl.nasa.gov!swrinde!emory!rsiatl!ke4zv!gary@network.UCSD.EDU
Subject: AM Broadcast Radio Antenna
To: info-hams@ucsd.edu

In article <C8M2vy.J0J@hpmoca.sqf.hp.com> dstock@hpmoca.sqf.hp.com (David Stockton) writes:

>
> There is one possible problem, on 0.5 to 1.6 MHz the car antenna is
>very short, and looks like a high impedance. The radio is designed to
>attend to this. The coax on an antenna is peculiar high impedance stuff
>to minimise the capacitance to ground to minimise the capacitive
>potential divider effect. Radios often have a trimmer capacitor to allow
>you to compensate the effect to different antenna/cable lengths pulling
>the first tuned circuit. If you used a car antenna and added a long
>length of 50 ohm coax, there would be a lot of signal loss. On mainland
>Europe, tiny car antennae with fet preamps are common, some Brit fords
>have a matcher/preamp box in the feed to the electrical heater wires in
>the rear window. Something of this nature might be needed if your cable
>run is long.

You're right David, running 50 ohm coax is a no-no unless you take steps to do impedance transformations on each end. Of course you can just use the "peculiar" cable if the run isn't terribly long. For my shop, that's only about 20 feet to the outside. For long runs of 50 ohm cable, you can use a FET at the voltage probe antenna to do the transformation to 50 ohms, or use a big wire antenna instead of the little voltage probe. And you must then use a matching network at the radio as well because it *is* designed to see a high impedance.

Actually, if you have signal to burn, which you often do, then you can terminate the coax in a resistor and let the high impedance of

This logically leads on to the TNC, the Threaded Navy Connector, which is the same as a BNC but uses a screw on method rather than the bayonet.

Mike

Date: Tue, 15 Jun 1993 18:04:34 GMT
From: netcomsv!netcom.com!grady@decwrl.dec.com
Subject: BNC connectors
To: info-hams@ucsd.edu

Grizzly.45mag (chhibber@andromeda.rutgers.edu) wrote:
What is BNC stand for?

Why, the second great discovery of the computer scientists
Backus-Nauer.

--
grady@netcom.com Moby lexicons voice/fax (707) 826-7715

Date: Tue, 15 Jun 1993 14:57:25 GMT
From: usc!elroy.jpl.nasa.gov!swrinde!emory!rsiatl!ke4zv!gary@network.UCSD.EDU
Subject: BUYING COAX
To: info-hams@ucsd.edu

In article <6BAA17B00062D241@gmr.com> A15SEA%ANDV02@gmr.COM writes:
>I'm currentlt installing my new 40 ft' tower with a Cushcraft A-3S and a
>R5, I looking around for a good coax, I was considering buying Belden 9913
>using PL259 connectors. WHAT COAX TYPE ARE YOU USING, ANY COMMECTS WOULD
>HELPFUL.

9913 is a low loss flexible cable. And it's one of the cheaper solutions at UHF, though CATV hardline is often available free, and has even lower loss. At HF, however, the difference in loss between 9913 and RG213 is so small that it's usually not worth the extra trouble. 9913 is semi-airline. And it's shield is a belfoil (aluminum) with a 65% copper braid. This leads to three problems. First, you have to seal the cable ends very carefully or you'll get water ingress that will quickly ruin the cable. Second, it's hard to get a secure soldered connection to the shield of the cable when using PL259 connectors. Mechanical crimp connectors, such as those manufactured for 9913 by Kings, work much better. And third, 9913 doesn't

like sharp bends, or much flexing, so connecting it to a rotatable antenna will eventually lead to cable failure.

I'd advise simply using a good quality cable of the RG8 type. Note that RG8 is no longer a military specification and the quality of RG8 type cables varies widely. Trust Belden, be wary of Radio Shack. RG213 and RG214 are still military specs, and are both good cables, but they'll cost more than necessary for your application.

For the ultimate contest station, which yours isn't, then you might consider rigid line such as Andrew Heliax, or the ever available CATV cable. You won't notice the difference with your antennas at your height.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 15 Jun 93 04:38:35 GMT
From: news-mail-gateway@ucsd.edu
Subject: Daily Solar Geophysical Data Broadcast for 14 June
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 165, 06/14/93
10.7 FLUX=083.7 90-AVG=116 SSN=011 BKI=0225 2222 BAI=011
BGND-XRAY=A7.2 FLU1=2.5E+05 FLU10=1.2E+04 PKI=1325 2222 PAI=011
BOU-DEV=004,019,016,080,013,019,010,015 DEV-AVG=022 NT SWF=00:000
XRAY-MAX= B2.9 @ 0533UT XRAY-MIN= A5.9 @ 2110UT XRAY-AVG= A9.2
NEUTN-MAX= +000% @ 0000UT NEUTN-MIN= +000% @ 0000UT NEUTN-AVG= +0.0%
PCA-MAX= +0.0DB @ 0000UT PCA-MIN= +0.0DB @ 0000UT PCA-AVG= +0.0DB
BOUTF-MAX=55368NT @ 2358UT BOUTF-MIN=55317NT @ 1753UT BOUTF-AVG=55353NT
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+075,+000,+000
GOES6-MAX=P:+127NT@ 1650UT GOES6-MIN=N:-080NT@ 2329UT G6-AVG=+099,-020,-050
FLUXFCST=STD:085,085,090;SESC:085,085,090 BAI/PAI-FCST=010,010,010/010,010,010
KFCST=1234 3222 1234 3222 27DAY-AP=008,010 27DAY-KP=2212 2233 2233 2232
WARNINGS=
ALERTS=
!!END-DATA!!

NOTE: The Effective Sunspot Number for 13 JUN 93 was 68.7.
The Full Kp Indices for 13 JUN 93 are: 2+ 3+ 5- 3o 2+ 2+ 3- 3-

Date: Tue, 15 Jun 1993 17:01:12 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!
noc.near.net!news.bbn.com!petra!popovich@network.UCSD.EDU
Subject: Field Day Power.
To: info-hams@ucsd.edu

> Really, if you're using a fire tower, why not decorate it with a
>couple of strings of construction lights, tastefully wound around the
>exterior? :-) :-) :-)

Great idea, Bruce. With the antennas up on the fire tower, though,
why not save the power for all kinds of other gadgets? Just mount
fluorescent tubes all over the tower, and the whole thing will blink
off and on in time with your Morris! You can even have QSOs with
other Field Day stations who happen to be in your line of sight.
Let's see...does visible light count for "Above 300 GHz", or whatever
that highest-frequency ham band is? And is a QSO on this band legal
for a multiplier under the Field Day rules?

-Steve

Date: Tue, 15 Jun 1993 15:07:51 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!elroy.jpl.nasa.gov!swrinde!emory!rsiatl!
ke4zv!gary@network.UCSD.EDU
Subject: Ground Plane always on bottom?
To: info-hams@ucsd.edu

In article <Nimtz.1-140693160042@nimtziici.edmedia.nd.edu> Nimtz.1@nd.edu (Rick
Nimtz) writes:

>Do the ground plane wires need or have to be lower than the 1/4 wave
>radiating element? All the construction articles show the ground plane
>wires
>the same length as the radiator, what happens if they are longer?
>
>I have a 1/4 wave ground plane for 2 meters hanging upside down in a window
>and it does a decent job, well it's better than the rubber duck. For the
>ground plane I'm using the longwire strung around the room near the
>ceiling.

The groundplane elements serve two purposes. First they provide the
current mirror for the monopole. And second they act to decouple RF
from the feedline. As such, they have to be at the end of the antenna
that is fed, whether that's the top or the bottom.

By being of resonant length, three groundplane elements do a competent
job of substituting for an infinite solid ground. However, if they are
not resonant, they will be much less effective at their job and you'll

need more of them to fill in the groundplane. This is because the capture area of a resonant structure is larger than that of a non-resonant structure.

The current maxima of a 1/4 wave groundplane is such that the monopole gets a bit more of the current than the groundplane elements. This skews the antenna pattern in the direction of the monopole. So operating one right side up gives a major lobe that rises slightly above the horizon, and operating one upside down directs the major lobe below the horizon. If the antenna is on a very high tower, and you want local coverage, this down tilt may be just what you need. But in the usual case, you'll get more range by erecting the groundplane in the conventional manner.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 15 Jun 1993 18:35:52 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!math.ohio-state.edu!magnus.acs.ohio-state.edu!flinxwei@network.UCSD.EDU
Subject: Icom IC-20L
To: info-hams@ucsd.edu

recently, I aquired an Icom IC-20L Linear Amplifier, but I have no manual or specifications. Does anyone have one of these? More importantly, does anyone know about the I/O power?

Thanks in advance,

73,
eric N8UNN

Eric Linxweiler
The Ohio State University
Dept. of Mathematics

Mathematica Student Rep.
Wolfram Research, Inc.

e-mail: linxweiler.1@osu.edu -or- linx+@osu.edu
packet: n8unn@w8cqk.#cmh.oh.usa.na

Date: 15 Jun 93 12:25:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: Info-Hams Digest V93 #727
To: info-hams@ucsd.edu

Date: 15 Jun 93 19:05:33 GMT
From: ogicse!emory!europa.eng.gtefsd.com!rocky.tntn.gtegsc.com!not-for-mail@network.UCSD.EDU
Subject: June VHF Contest - Score Rumors
To: info-hams@ucsd.edu

High Claimed Scores - June VHF Contest 1993

(from info gathered on 144.200 after the contest)

Single-Op

none

QRP Portable

KH6CP/1 (FN33) 305/106 39K

Limited Multi

	K1TR/3 (FN20) Ops:K1TR,N1AFQ, WS1C,KA1GD, NJ2L,KM3T, WN3A,N3AKO, K5ZD)	VE3ONT (FN25)	K3UA (FN11)
50	726/191	570/174	597/171
144	787/ 60	311/ 58	393/ 54
222	151/ 37	132/ 44	53/ 25
432	323/ 41	138/ 36	91/ 32
1.2G		33/ 20	
	-----	-----	-----
	1987/329	1151/312	1134/ 282

Total: 809,669 443,352 360,396

	W4IY	K3MQH (FM19)	W1TKZ (FN33)
50	477/169	263/ 89	294/ 98
144	439/ 60	542/ 42	388/ 46
222		76/ 26	48/ 17
432	85/ 27	201/ 45	70/ 21
1.2G	27/ 11	37/ 16	
	-----	-----	
	1027/267	1082/202	800/182

Total: 311,580 274,518 167,076

Multiop

	W2SZ/1 (FN32)	K3YTL (FN11)	W3IP (FM19)
50	746/166	222/ 91	222/ 91
144	633/ 52	500/ 60	328/ 44
222	164/ 30	?/?	44/ 23
432	340/ 41	150/ 38	98/ 31
903	54/ 24	?/?	11/ 9
1.2G	90/ 24	?/?	24/ 13
2.3G	49/ 20		1/ 1
3.4G	44/ 14		
5.7G	22/ 12		
10G	28/ 8		1/ 1
24G	17/ 6		
	-----	-----	
	2163/397	729/213	

Total: 1.35M 201K

--

Dave Pascoe KM3T

Internet: pascoe@rocky.tntn.gtegsc.com

(508) 880-2297 or (617) 455-5704

Date: 15 Jun 93 16:06:59 GMT
From: news-mail-gateway@ucsd.edu
Subject: Kenwood TH-78 Problems
To: info-hams@ucsd.edu

Hi,

I bought a TH-78E around September last year. About three/four weeks ago, all the buttons on the left hand side started failing, starting with the VFO button, and ending with the PTT. I sent it off to Lowe's in Matlock, and it came back today with a note saying what they'd done which was:

"Locate and resolder fractured joints on flexible strip connector."

I don't think I've mistreated the transciever, indeed I had a TH-27E beforehand, and never had any trouble with it, so I'm just wondering, has anyone else had similar problems?

73,

Paul, GW7KES

~~~~~

Packet: GW7KES@GB70NV.#45.GBR.EU  
Work Internet: pdu@unixa.nerc-barry.ac.uk  
Home Internet: paul@gleep.demon.co.uk

-----  
Date: 15 Jun 93 10:49:28 est  
From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!darwin.sura.net!  
news.udel.edu!udel!news.intercon.com!psinnntp!arrl.org@network.UCSD.EDU  
Subject: Labelling of layers in Ionisphere  
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, fkf1@cornell.EDU (F. Kevin Feeney) writes:

>Last night during our review session for a novice/tech class, I was up at  
>the board talking about the various layers of the ionishpere and their  
>effects on radio propagation when someone asked "If these are D, E and F,  
>where are A, B, and C?" Stumped me. Our best collective guess was that  
>there might be lower layers with those designations but that they don't  
>affect radio so we never talk about them. Can anyone enlighten me? (and the  
>class)

Footnote 5 on page 173 of W. Snyder and C. Bragaw, "Achievement in Radio"

(Washington, DC: US Dept of Commerce, 1986) Library of Congress catalog card number 85-600619, quotes from a letter to NBS's Dellinger from Sir Edward Appleton on this. To paraphrase,

\* in early work on reflections from the Kennelly-Heaviside layer, Appleton used the letter E for the electric vector of the down-coming wave

\* finding in winter 1925 that he could get reflections from a different, higher layer, he used the term F for the electric vector of the waves reflected from it

\* observing occasional reflections from a very low height, he "so naturally used the letter D for the electric vector of the[se] return waves"

\* realized that he needed to name these discrete strata, and decided to use these letters (D, E, F) as they were because "I felt I ought not to call them A, B, and C since there might be undiscovered layers both below and above them."

Regards/WJ1Z

|                                        |  |                          |
|----------------------------------------|--|--------------------------|
| David Newkirk, Senior Asst Tech Editor |  | voice: 203-666-1541 X280 |
| American Radio Relay League            |  | fax: 203-665-7531        |
| 225 Main St, Newington CT 06111 USA    |  | net: dnewkirk@arrl.org   |

-----  
Date: 15 Jun 93 06:21:19 GMT  
From: munnari.oz.au!metro!mippet.ci.com.au!eram!dave@uunet.uu.net  
Subject: The ITU phonetic alphabet  
To: info-hams@ucsd.edu

In article <1993Jun10.035536.12091@bongo.tele.com>,  
julian@bongo.tele.com (Julian Macassey) writes:

| So, anywhere in the world you will find people understand the  
| word "Golf", few understand "Greyhound". They race them in Britain  
| and the U.S. and the bus line by that name only runs in the U.S.

Oi! Greyhounds (both the wheeled and the furry variety) run in  
Australia as well, cobber!

--

|                        |                            |           |
|------------------------|----------------------------|-----------|
| Dave Horsfall (VK2KFU) | VK2KFU @ VK2RWI.NSW.AUS.OC | PGP 2.2   |
| dave@esi.COM.AU        | ...munari!esi.COM.AU!dave  | available |

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Date: 15 Jun 93 12:32:03 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Wanted: High-power Amp for 144 MHz  
To: info-hams@ucsd.edu

I'm in the market for a legal-limit amp for the 2-meter band.  
1,500 watts out without squeaking. I'll consider either  
commercial (i.e. Henry) or well-built homebrew, with or without  
power supply/relays. I'm talking about 8877/4CX1500/2\*3CX800,  
NOT 4CX250/8930s. If you know anyone who might want to sell a  
serious amp, please contact me directly.  
MRO

\*\*\*\*\*  
Michael R. Owen, Ph.D. a.k.a.: W9IP  
Department of Geology Northern Lights Software  
St. Lawrence University Star Route, Box 60  
Canton, NY 13617 Canton, NY 13617  
(315) 379-5975 - voice - (315) 379-0161 (6-9pm)  
e-mail: MOWE@SLUMUS FAX - (315) 379-5804  
\*\*\*\*\*

-----  
Date: 15 Jun 1993 19:24:41 GMT  
From: nothing.ucsd.edu!brian@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <1993Jun14.144241.17691@ke4zv.uucp>, <C8nAqG.4px@athena.cs.uga.edu>,  
<1993Jun15.141003.22243@ke4zv.uucp>  
Subject : Re: Digital microwave project

gary@ke4zv.UUCP (Gary Coffman) writes:  
>>>Strictly speaking, all such transmissions are prohibited, even the  
>>>midi sequences. The rules don't specify the format, only the content.

Indeed, one could not, under that opinion, legally send images of sheet  
music, or speak sequences of notes over ham radio.

Luckily, however, the rule of law is tempered to justice by reason.  
- Brian

-----  
Date: Tue, 15 Jun 1993 17:53:59 GMT  
From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!  
sol.ctr.columbia.edu!news.kei.com!ub!acsu.buffalo.edu!bowen@network.UCSD.EDU

To: info-hams@ucsd.edu

References <jfhC8F0vC.EqD@netcom.com>, <130637@netnews.upenn.edu>,  
<930612.191535.3G2.rusnews.w165w@garlic.sbs.com>p  
Subject : Re: Callbook server

Sorry, I was away last week and missed all the fun. Here are my opinions  
on the callsign server updates...

- o Fred Lloyd was kind enough to send a complimentary copy of the QRZ!  
CDROM to me. This is an wonderful piece of work and I recommend it to  
anyone with a CDROM drive. However, I have a very small amount of time  
to dedicate to updating the server and the data on this drive is not in  
the format I am used to. It's not that far off but it's also not right  
on the money which means I have to write a small program to convert it  
to a format that I can plug into the server. I have not had time for  
that and that is why the server has not been updated. I was recently  
moved to look at the data again and it doesn't look like it will be that  
bad to convert so I hope to do that by the end of the week.
- o I doubt Fred is going to keep sending me free CDs so I will be relying  
on the network community to supply me with them. If you want an update  
then pay Fred to send me the latest and I'll update it. That's about as  
fair a system as I can think of and since the discs are only \$25 I  
don't think it'll break anyone's bank. Of course, you should check with  
me first to make sure someone isn't already sending me a copy so that  
your money isn't wasted.
- o The original post by Marc wasn't exactly worded as best as it could  
have been. Marc intended no flames and was not whining and demanding  
free service. I've spoken to Marc a number of times via e-mail and he  
has always been very willing to do whatever he can to help. His post  
was meant more as motivation for the community to help than anything  
else. Please don't let misunderstanding stifle his good intentions.

I think that's it. I'll keep you posted.

Devon

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End of Info-Hams Digest V93 #730

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